

PROJECT DESCRIPTION			EQUIPMENT LIST (Cont.)			EQUIPMENT LIST (Cont.)		
I. GENERAL			A. EQUIPMENT TO BE SUPPLIED BY S.H.A..			B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR		
This project involves the installation of a new Traffic Control Signal with interconnect, a Hazard Identification Beacon and minor geometric improvement at the intersection of US 301 and Heritage Green Parkway in Charles County. US 301 is assumed to run in an north-south direction.			ITEM NO.	DESCRIPTION	QUANTITY	ITEM NO.	DESCRIPTION	QUANTITY
			Sheet aluminum signs to consist of:					
			9090	D1-1 "Heritage Green PKWY (variablex12") ground mounted with hardware..	2 EA	8040	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	2125 L.F.
II. INTERSECTION OPERATION			B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR					
1. The intersection is to operate in a NEMA six-phase, fully-actuated mode, with the US 301 approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of US 301. Heritage Green Parkway shall operate in a split phase mode.			ITEM NO.	DESCRIPTION	QUANTITY	8041	Furnish and install electrical cable - 2 conductor (aluminum shielded).	780 L.F.
2. A full-traffic-actuated, eight-phase controller with three (3) four channel, rack mount loop detector amplifiers and intersection monitor with battery back-up for phone drop and associated harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.			1001	Maintenance of traffic per assignment.	1 EA	8043	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	185 L.F.
			2001	Test pit excavation.	5 C.Y.	8044	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	1800 L.F.
			2004	Class 2 Excavation.	6 C.Y.	8045	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	475 L.F.
III. SPECIAL NOTES			5001	5" yellow heat applied permanent preformed thermoplastic pavement marking.	40 L.F.	8046	Furnish and install tray cable - 2 conductor (No. 12 AWG).	370 L.F.
1. The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.			5002	5" white heat applied permanent preformed thermoplastic pavement marking.	660 L.F.	8048	Furnish and install No. 6 AWG stranded bare copper ground wire.	585 L.F.
2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Dave Swartz at (410) 787-7650 seventy-two hours in advance of intended work.			5004	24" white applied permanent preformed thermoplastic pavement marking.	120 L.F.	8049	Furnish and install electrical cable 1-conductor No. 4 AWG THHN/THWN.	1100 L.F.
EQUIPMENT LIST			5007	Remove existing pavement markings - any width.	495 L.F.	8050	Furnish and install wood sign supports 4"x4"	46 L.F.
A. EQUIPMENT TO BE SUPPLIED BY S.H.A..			6001	4" concrete sidewalk.	45 S.F.	8051	Furnish and install wood sign supports 4" x 6".	108 L.F.
ITEM NO.	DESCRIPTION	QUANTITY	6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	90 L.F.	8052	Install ground mounted sign.	71 S.F.
9076	Cabinet "G" type - pole mount	1 EA	6009	Furnish and install depressed curb and gutter.	20 L.F.	8053	Install overhead sign.	121 S.F.
9081	Eight-phase, full-traffic actuated, solid state digital controller with (3) 4-channel, rack mount loop detector amplifiers, and Intersection Monitor with battery back-up for phone drop and associated harnesses housed in a NEMA size " 6 " - mounted cabinet.	1 EA	8001	Furnish and install concrete for signal foundation.	15 C.Y.	8055	Furnish and install 250 watt HPS luminaire with photocell.	2 EA
9089	Sheet aluminum signs to consist of:	133 SF	8006	Cut, clean, galvanize and cap traffic signal structure.	2 EA	8056	Furnish and install 20' lighting bracket arm for traffic signal structure.	2 EA
	M1-4 "US 301" sign, (30"x24") ground mounted with hardware	2 EA	8008	Furnish and install 3" weatherhead.	2 EA	8057	Remove and dispose of existing foundation 12" below grade.	1 EA
	M3-1 "NORTH" sign, (24"x12") ground mounted with hardware.	1 EA	8017	Furnish and install microloop probe set with 1000' lead-in	4 EA	8060	Remove and dispose of existing material and equipment per assignment.	1 EA
	M3-2 "SOUTH" sign, (24"x12") ground mounted with hardware.	1 EA	8019	Install controller and cabinet pole mount.	1 EA	8063	Furnish and install 3" electrical conduit - polyvinyl chloride riser.	60 L.F.
	M5-1 "ADVANCE TURN ARROW" symbol, sign (21"x15") ground mounted with hardware.	1 EA	8020	Install controller and cabinet base mount.	1 EA	8066	Furnish and install control and distribution equipment (120/240 V, 1 phase, 3 wire system)	1 EA
	M6-2 "DIRECTIONAL ARROW" symbol, sign (21"x15") ground mounted with hardware.	1 EA	8021	Furnish and install saw cut for signal (loop detector).	575 L.F.	8079	Furnish and install mast arm pole and 70' mast arm (cut to 45').	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted.	3 EA	8022	Furnish and install 1" electrical conduit galvanized sleeve.	30 L.F.	8081	Furnish and install mast arm pole and twin (50'/60') mast arm.	1 EA
	R3-6 "LEFT TURN, THRU LANE" symbol sign, (30"x36") mast arm mounted	1 EA	8023	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.	40 L.F.	8081	Furnish and install mast arm pole and twin (60'/50' -cut to 40') mast arm.	1 EA
	R4-7 "KEEP RIGHT" symbol sign (24"x30") ground mounted with hardware	1 EA	8027	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched	2275 L.F.	8084	Furnish and install 12" vehicular traffic signal head section (Black-faced)	29 EA
	R6-1R "ONE WAY" (36"x12") sign, pole mounted	2 EA	8029	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - bored.	325 L.F.	8084	Furnish and install 12" vehicular traffic signal head section (Standard yellow faced)	14 EA
	R6-1L "ONE WAY" (36"x12") sign, pole mounted.	2 EA	8030	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trenched.	30 L.F.	NEG.	Furnish and install down guy onto existing utility pole.	2 EA
	W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted with hardware.	2 EA	8032	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	180 L.F.	NEG.	Remove existing steel pole with mast arm.	1 EA
	W3-3 "SIGNAL AHEAD" sign, (48" x 48") mast arm mounted with hardware.	1 EA	8033	Furnish and install electrical handhole.	21 EA	NEG.	Selective tree trimming	LUMP SUM
	Guide Shield Assembly consisting of: M3-1 "NORTH" (24"x12"), M1-4 "US 301" (30"x24"), M6-1 "DIRECTIONAL ARROW" (21"x15") signs	1 EA	8034	Furnish and install ground rod -3/4" x 10'.	10 EA	NEG.	Hot mix asphalt pavement	1 TON
	Guide Shield Assembly consisting of: M3-2 "SOUTH" (24"x12"), M1-4 "US 301" (30"x24"), M6-1 "DIRECTIONAL ARROW" (21"x15") signs	1 EA	8038	Furnish and install 12-pair communication cable, self-supporting (overhead).	5400 L.F.	NEG.	Remove ground mounted sign.	5 EA
9090	Sheet aluminum signs to consist of:	59 SF						
	D3-2 "Heritage Green PKWY (right arrow)" sign, (variable x 16") dual faced mast arm mounted.	1 EA						
	D3-2 "(left arrow) Heritage Green PKWY" sign, (variable x 16") dual faced mast arm mounted	1 EA						
	D3-2 "Blue Star Mem HWY " (variable x 16") dual faced mast arm mounted.	1 EA						